



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/698,580	10/31/2003	Jerome P. Fanucci	KAZAK-014XX	1649
207	7590	10/12/2004	EXAMINER	
WEINGARTEN, SCHURGIN, GAGNEBIN & LEOVICI LLP TEN POST OFFICE SQUARE BOSTON, MA 02109			COLLINS, TIMOTHY D	
			ART UNIT	PAPER NUMBER
			3643	

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/698,580

Applicant(s)

FANUCCI ET AL.

Examiner

Timothy D Collins

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) 45-60 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. This application contains claims directed to the following patentably distinct species of the claimed invention:

Choose from the following: these are approximately from claim 11

- a. Actuator on the forward wing
- b. Actuator in the forward wing
- c. Actuator on the aft wing
- d. Actuator in the aft wing
- e. Actuator on the forward and aft wing
- f. Actuator in the forward and aft wing

After choosing one of the above, choose one of the following: approximately from claims 12-13

- i. actuator is a piezoelectric element
- ii. actuator is a shape memory alloy
- iii. actuator is a ferroelectric material
- iv. actuator is a ferromagnetic material

After choosing one of the above, choose one of the following: approximately claims 14 and 18

- (1) actuator element is on the pressure face
- (2) actuator element is on the trailing edge

Art Unit: 3643

After choosing one of the above, choose one of the following: approximately claims 16 and 17

- (a) actuator element is distributed along the wing
- (b) actuator element is at a discrete location

After choosing one of the above, choose one of the following: approximately claims 24 and 27

- (i) wings are made of metal
- (ii) wings are made of a composite with core of fiber

After choosing one of the above, choose one of the following: approximately claims 31 and 32

- 1) wings in the stowed position, forward wing roots of the 1<sup>st</sup> and 2<sup>nd</sup> wings closer to nose of aircraft than in the deployed position
- 2) forward wing roots of the 1<sup>st</sup> and 2<sup>nd</sup> wings further aft in the deployed position than in the stowed position

After choosing one of the above, choose one of the following: approximately claims 33-36

- a) center of pressure of wings further forward than the CG

Art Unit: 3643

- b) center of pressure of wings  
further aft than the CG

After choosing one of the above, choose one of the following: approximately from claims 33-36 as above

- i) First wing only
- ii) Second wing only
- iii) Both First and Second  
wing

After choosing one of the above, choose one of the following: approximately from claims 37-40

- a) forward wing of 1<sup>st</sup> coupled  
with forward wing of 2<sup>nd</sup> for  
simultaneous movement
- b) aft wing of 1<sup>st</sup> coupled with aft  
wing of 2<sup>nd</sup> for simultaneous  
movement

For example, the election from the above species should be like:

If the applicant wants an Actuator in the forward wing, that is a shape memory alloy, with the actuator on the trailing edge, at a discrete location, in wings that are made of metal, wherein wings in the stowed position, forward wing roots of the 1<sup>st</sup> and 2<sup>nd</sup> wings closer to nose of aircraft than in the deployed position, with the center of pressure of the wings further forward than the CG in the second wing only, with the aft wing of 1<sup>st</sup>

Art Unit: 3643

coupled with aft wing of 2<sup>nd</sup> for simultaneous movement. This would be chosen as :

"b,ii,2,b,i,1,a,ii,b".

2. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Art Unit: 3643

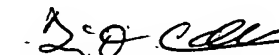
Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D Collins whose telephone number is 703-306-9160. The examiner can normally be reached on M-Th, 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Timothy D. Collins

Art Unit: 3643

Patent Examiner  
Art Unit 3643

A handwritten signature in black ink, appearing to read "Peter M. Poon". The signature is fluid and cursive, with the first and last names being more prominent.

Peter M. Poon  
Supervisory Patent Examiner  
Technology Center 3600

9/7/04